

13. Diseases of the Musculo Skeletal System and Connective Tissue

Reference

Byun H, Kim SW, Ahn JH, et al. Individualized acupuncture vs. standardized acupuncture in symptomatic treatment of osteoarthritis of the knee—a randomized controlled trial (IS Randomized, controlled trial N 40706107). *Daehan-Chimgu-Hakhoeji (Journal of Korean Acupuncture & Moxibustion Society)* 2007; 24(4): 183–95 (in Korean with English abstract).

1. Objectives

To evaluate the effect of personalized acupuncture (Sa-Am acupuncture [舍岩鍼]) on osteoarthritis of the knee.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Dongkuk University Ilsan Oriental Hospital), Republic of Korea.

4. Participants

Patients with knee degenerative osteoarthritis meeting American College of Rheumatology (ACR) classification criteria (n=50).

5. Intervention

Arm 1: Standard local acupuncture + personalized Sa-Am acupuncture (n=25).

Arm 2: Standard local acupuncture (n=25).

Acupuncture treatment: 2 treatments a week for 6 weeks, 12 treatments in total.

Local acupuncture (applied to 6 acupuncture points in the affected site): Yanglingquan (GB 34 陽陵泉), Yinlingqun (SP9, 陰陵泉), Dubi (ST35, 犢鼻), Xiyan (EX-LE5, 膝眼), Heding (EEX-LE2, 鶴頂), and Ashi (阿是). If pain occurred in both knees, both were treated. All patients received the same, mixed frequency stimulation (i.e. alternating low [2Hz] with high [30Hz] frequency stimulation) (applied to 4 Sa-Am acupuncture points in unaffected sites): Ganjeonggyeok (肝正格), Ganseunggyeok (肝勝格), Sinjeonggyeok (腎正格), and Sinseunggyeok (腎勝格). If pain occurred in both knees, the knee with less pain was treated.

Among 50 subjects enrolled, 3 dropped out (all in Arm 1).

Reasons for dropping out: loss to follow-up (n=1), relocation (n=1), pain during acupuncture treatment (n=1)

6. Main outcome measures

Pain self-assessed on a visual analogue scale (VAS), and scores on the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), 36-Item Short-Form Health Survey (SF-36), Lequesne Functional Index (LFI), Korean Version of Health Assessment Questionnaire (KHAQ).

7. Main results

Treatment significantly decreased the pain VAS, WOMAC, LFI, and KHAQ scores, but not SF-36 score.

The effect of personalized acupuncture and standard acupuncture:

From the fitted regression line of VAS and WOMAC before and after 3, 6, and 18 weeks of treatment in Arm 1, VAS score decreased slightly as treatment progressed and returned to pretreatment level after 18 weeks of treatment.

Regarding the equilibrium box diagram of VAS, VAS scatter was much larger in Arm 1 than Arm 2 at baseline, 3 weeks, and 6 weeks, but not at 18 weeks. Regarding the change in median VAS and WOMAC scores, both scores decreased continuously in Arm 1 and Arm 2, but increased at 18 weeks in Arm 2.

There was no between-group difference in LFI and KHAQ.

8. Conclusions

Both treatments relieve symptoms and are safe. Personalized acupuncture can provide even more pain relief by 3 months after treatment.

9. Safety assessment in the article

No adverse events occurred.

10. Abstractor's comments

This randomized controlled trial compared treatment with personalized acupuncture (local acupuncture points: electroacupuncture, Distal acupuncture points: Sa-Am acupuncture) with standard acupuncture (local acupuncture points: electroacupuncture) for knee osteoarthritis. A flowchart of the trial was presented, results were recorded according to STRICTA recommendations, and the number of drop-out and excluded subjects were clearly indicated. The study was single blind, but blinding of all the subjects, investigators, and diagnosticians (but not clinicians) was possible. However, the use of per protocol analysis was a limitation of this study and the values in graphs are not clear, and so results cannot be interpreted. Moreover, the difficulty of knowing what part of the treatment effect is due to spontaneous remission is another serious limitation.

11. Abstractor and date

Kim JI, 14 June 2010.